EVALUATION OF THERAPUTIC POTENTIAL OF FRUIT SEED EXTRACT FROM COPERNÍCIA CERIFERA MART. IN DYSLIPIDEMIC MICE

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Introduction: Copernicia cerifera Mart, popularly known as Carnauba, is a native palm tree of the semi-arid region of Brazilian northeast, mainly in the States of Ceará and Piauí. The wax that covers the leaves, has valuable compounds useful for the pharmaceutical, cosmetic and food industries. Studies regarding the chemical characterization and biological effects of carnauba fruit seed extract are not reported in the literature. Objective: Evaluation of therapeutic potential of fruit seed extract from Copernicia cerifera Mart. in dyslipidemic mice. Methods: Hypercholesterolaemic diet induced animal group was treated for 90 days with methanolic pulp extracts and seeds on 150 e 300 mg/Kg/Day doses respectively during 90 days. Blood samples were collected to determine levels of total cholesterol, triglycerides, HDL-cholesterol, glucose, AST, ALT, urea and creatinine. Liver was withdrawn for lipidic peroxidation and histopathologic analysis. Results: Daily supplementation with fruit seed methanolic carnauba extracts on dose of 150 e 300 mg/Kg/day did not minimize the hypercholesterolemic effects. However, it reduced meaningfully plasmatic triglycerides levels when compared to a standard diet and serum malondialdehyde concentrations provoked by diet. However, there was a bigger inflammatory process on liver tissue when increasing dose, suggesting a possible toxic effect. Conclusion: The results showed the potential use of carnauba methanolic fruit seed extract (Copernicia cerifera Mart.) on 300 mg/Kg/day dose for reducing serum triglycerides, offering an important potential cardio protector effect. Further studies on toxicity must be done because when was increased extract dose, a hepatotoxic effect was observed.

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Keywords: Copernicia cerifera Mart, Carnauba, hypercholesterolaemia, cholesterol, triglycerides.